[0040] Table 6 illustrates one embodiment of encoding the Modulation Index parameter:

TABLE 6

Modulation Index	
00	8 bits/pin/clock period
01	16 bits/pin/clock period
10	24 bits/pin/clock period
11	32 bits/pin/clock period

[0041] Table 7 illustrates one embodiment of encoding the Scan Type parameter:

TABLE 7

Scan Type	
0	progressive
1	interleaved

[0042] Table 8 illustrates one embodiment of encoding the Color Space parameter:

TABLE 8

Color Space	
00	RGB
01	monochrome
10	YUV
11	CMYK

[0043] Table 9 illustrates one embodiment of encoding the Min Clock Frequency parameter (and the Max Clock Frequency and Preferred Clock parameters can be done similarly):

TABLE 9

Min Clock Frequency	
00	8 MHz
01	12 MHz
10	24 MHz
11	32 MHz

[0044] Table 10 illustrates one embodiment of encoding the Scan Rate parameter:

TABLE 10

Scan Rate	
00	30 Hz
01	60 Hz
10	75 Hz
11	85 Hz

[0045] Table 11 illustrates one embodiment of encoding the Degradation parameter (which can be global to all colors, or could be individually specified for each color):

TABLE 11

Degradation	
00	no degradation, panel controller should send regular color values
01	5% degradation, panel controller should boost color intensity 5%
10	15% degradation, panel controller should boost color intensity 15%
11	25% degradation, panel controller should boost color intensity 25%

[0046] Table 12 illustrates one embodiment of encoding the Color Depth parameter:

TABLE 12

Color Depth	
000	1-bit color (monochrome)
001	8-bit color (2 red, 3 green, 2 blue)
010	12-bit color (4 bits each color)
011	16-bit color (5 bits red, 6 bits green, 5 bits blue)
100	24-bit color (8 bits each color)
101	32-bit color (8 bits each color, 8 bits alpha channel)
110	48-bit color (16 bits each color)
111	64-bit color (16 bits each color, 16 bits alpha channel)

[0047] The panel controller modifies its operation in response to the parameters received from the display panel. In some cases, the panel controller may modify what it presents at its output wires. In other cases, it may modify purely internal operations; for example, if the panel indicates that it has only eight data inputs, and the panel controller has thirty-two data outputs, the panel controller may respond to this parameter by powering down or otherwise disabling the unused data output drivers, to reduce power consumption, minimize cross-talk and noise, and so forth.

[0048] There are various other options, configuration parameters, and so forth which may be practiced in the panel controller.

[0049] In some embodiments, the panel controller may send all of the red pixel data, then all of the green pixel data, then all of the blue pixel data for the whole image, rather than sending a single pixel's three sub-pixel RGB values, then the next pixel's, and so forth. In many or perhaps most images, there are large blocks adjacent pixels having relatively uniform color, especially within each sub-pixel color (R or G or B). In some embodiments, it may be a configuration parameter whether to operate in normal "RGB RGB RGB . . . " space or in "all R, all G, all B" space.

[0050] Furthermore, there are color spaces other than RGB, such as YUV, CMYK, gray scale, and monochrome. This invention may be practiced within any or all of those, and their selection can, in some embodiments, be a configuration parameter.

[0051] In many cases, only a very small percentage of the video image changes from frame to frame. In many cases, there are very long periods of time—minutes or even hours—with zero pixel data change. In these cases, it is wasteful of energy to repeatedly send the same pixel data over and over from the panel controller to the panel display. This is especially significant in battery-powered applica-